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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,996	03/30/2004	William Bryson McHardy	200316686-1	6072

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER	
SCHLIE, PAUL W	
ART UNIT	**PAPER NUMBER**
2186	

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/813,996	MCHARDY, WILLIAM BRYSON	
	Examiner	Art Unit	
	Paul W. Schlie	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 3/30/04.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-20 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 3/30/04 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-20 have been examined.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. As elements critical or essential to the practice of the invention are neither included in the claims nor enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

More specifically, as the disclosure does not disclose the means by which an end-of-list marker or logically equivalent new-list-index marker may be differentiated from an arbitrary data element (which may presumably be of any value, thereby can't be differentiated from a value being utilized as a marker), the disclosure is not considered sufficient to enable one of ordinary skill in the art to make or use the claimed invention without undue experimentation.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Steele et al. ("Revised 5 Report on the Algorithmic Language Scheme" 1998).

As per independent claims 1 and 11, are clearly anticipated and inherently enabled by the list based language scheme (and although not cited the specification of XML), in which the principle data type is an arbitrary extensible list structure which is utilized to compose arbitrary hierarchical list oriented structures which may themselves represent abstract data and/or algorithmic programs which may themselves be composed of lists or more primitive data types and/or functions, inclusive of the standard defined function "(list-ref a-list n)" (see page 27 column 2 lines 1-8) which enables an arbitrary element within an list (bounded by an empty-list marker) to be referenced by iteratively referencing each element in sequence and returning the n'th element; where each element within said list may itself be uniquely identified as another list which may be inherently correspondingly indexed, or an alternative data type whose value is returned. Thereby the following function definition, inherently enabled and well known to those of ordinary skill in the art, is effectively equivalent to that claimed:

```
(define (index some-list . indexes)
   (let loop ((l some-list) (i indexes))
      (if (pair? i) ; another n'th index?
          (loop (list-ref l (car i)) (cdr i))
          l)) ; else return n'th indexed list element
```

Thereby:

```
(define a-list '((v00 v01)(v10 v11)))

(index a-list 1 0) => v10
```

Returning the first linearly indexed element of the second linearly indexed list of lists.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 2-10 and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steele et al. ("Revised 5 Report on the Algorithmic Language Scheme" 1998).

As per claims 2-10 and 12-20 being dependent on claims 1, 11, or correspondingly dependent claim inclusively, Steele et al. is further considered to teach as being inherent in that reviewed above, that indexing an element within such a list comprises identifying the n'th element of a list by counting previously sequentially encountered elements of said list, that an arbitrary depth multi-dimensional logical array may be linearly composed and indexed utilizing a hierarchy of such lists which may be indexed utilizing a corresponding sequence of corresponding indexes and return an indication if the specified index were invalid; where although Steele et al. does not explicitly teach that such a program and/or data representation may be stored on a computer readable storage medium, it is considered obvious to one of ordinary skill in the art at the time of the claimed invention to combine that taught by Steele et al. relevant to the claims with that considered obvious, for the benefit of enabling an apparatus comprising a processor to utilize the methods and/or data as may be embodied within any well known computer readable storage medium.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul W. Schlie whose telephone number is 571-272-6765, or whose email address is [paul.schlie@uspto.gov]. The examiner can normally be reached on Mon-Thu 8:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on 517-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PIERRE BATAILLE
PRIMARY EXAMINER
4/2/06